

## ABSTRACT

A radio communication system carrying out uplink scheduling so as to reduce interference at a base station apparatus even when there are communication terminal apparatuses in the process of soft handover. In this system, a separation section (110) of a communication terminal apparatus separates a result of demodulation of a received signal into received data and a transmit power control (TPC) command instructing an increase or decrease of transmit power, a base station selection section (120) selects a main base station apparatus having the best channel quality according to the TPC command and outputs base station selection information.

Furthermore, a transmit power control section (130) of the communication terminal apparatus determines transmit power according to the TPC command and an extra transmit power calculation section (140) calculates extra transmit power by subtracting the determined transmit power from maximum transmittable transmit power and outputs extra transmit power information. Furthermore, a selection/multiplexing section (150) of the communication terminal apparatus multiplexes transmission data, base station selection information and extra transmit power information and a transmission section (160) transmits the multiplexed data to the base station apparatus.

[FIG.2]

100 RECEPTION SECTION  
110 SEPARATION SECTION  
RECEIVED DATA  
5 120 BASE STATION SELECTION SECTION  
130 TRANSMIT POWER CONTROL SECTION  
140 EXTRA TRANSMIT POWER CALCULATION SECTION  
MAXIMUM TRANSMIT POWER  
160 TRANSMISSION SECTION  
10 150 SELECTION/MULTIPLEXING SECTION  
TRANSMISSION DATA

[FIG.3]

200 RECEPTION SECTION  
15 210 SEPARATION SECTION  
RECEIVED DATA  
220 SIR MEASURING SECTION  
230 RECEPTION QUALITY ESTIMATION SECTION  
250 COMMUNICATION TERMINAL SELECTION SECTION  
20 260 MCS SELECTION SECTION  
240 TPC COMMAND GENERATION SECTION  
TARGET SIR  
280 TRANSMISSION SECTION  
270 MULTIPLEXING SECTION  
25 TRANSMISSION DATA

[FIG.4]

200 RECEPTION SECTION  
210 SEPARATION SECTION  
RECEIVED DATA  
220 SIR MEASURING SECTION  
5 230 RECEPTION QUALITY ESTIMATION SECTION  
250 COMMUNICATION TERMINAL SELECTION SECTION  
260a MCS SELECTION SECTION  
HANDOVER INFORMATION  
240 TPC COMMAND GENERATION SECTION  
10 TARGET SIR  
280 TRANSMISSION SECTION  
270 MULTIPLEXING SECTION  
TRANSMISSION DATA

15 [FIG.5]  
200 RECEPTION SECTION  
210 SEPARATION SECTION  
RECEIVED DATA  
300 INTERFERENCE POWER ESTIMATION SECTION  
20 220 SIR MEASURING SECTION  
230 RECEPTION QUALITY ESTIMATION SECTION  
250 COMMUNICATION TERMINAL SELECTION SECTION  
260b MCS SELECTION SECTION  
240 TPC COMMAND GENERATION SECTION  
25 TARGET SIR  
280 TRANSMISSION SECTION  
270 MULTIPLEXING SECTION

## TRANSMISSION DATA